

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1-38 (Canceled)

39. (Previously Presented) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing (a) at least one isocyanate trimer containing an isocyanurate unit, or a trimer containing a biuret unit or mixtures thereof, and (b) at least one isocyanate dimer containing a uretidinedione unit, from a starting reaction medium containing at least one isocyanate monomer, in which the isocyanate groups are borne by  $sp^3$  carbon atoms, and optionally from other monomers, this process comprising the following steps:

- i) heating the starting reaction medium, in the absence of dimerization catalyst, to a temperature of at least 80°C, and of not more than 200°C, for a period of less than 24 hours to obtain a reaction product;
  - ii) reacting the reaction product from step i) containing isocyanate dimer and unreacted monomers in the presence of a (cyclo)trimerization catalyst, under (cyclo)trimerization conditions to obtain an isocyanurate trimer reaction product;
  - iii) removing unreacted monomers from the reaction product from step ii);
- and
- iv) isolating the low-viscosity polyfunctional isocyanate composition.

40. (Previously Presented) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing (a) at least one isocyanate trimer containing an isocyanurate unit, or trimer containing a biuret unit or mixtures thereof, and (b) at least one isocyanate dimer containing a uretidinedione unit, from a starting reaction medium containing at least one isocyanate monomer, in which the

isocyanate groups are borne by  $sp^3$  carbon atoms, and optionally from other monomers, this process comprising the following steps:

- i) heating the starting reaction medium, in the absence of dimerization catalyst, to a temperature of at least 120°C, and of not more than 170°C, for a period of less than 5 hours to obtain a reaction product;
  - ii) reacting the reaction product from step i) containing isocyanate dimer and unreacted monomers in the presence of a (cyclo)trimerization catalyst, under (cyclo)trimerization conditions to obtain an isocyanurate trimer reaction product;
  - iii) removing unreacted monomers from the reaction product from step ii);
- and
- iv) isolating the low-viscosity polyfunctional isocyanate composition.

41. (Currently Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing (a) at least one isocyanate trimer containing an isocyanurate unit, or a trimer containing a biuret unit or mixtures thereof, and (b) at least one isocyanate dimer containing a uretidinedione unit, from a starting reaction medium containing at least one isocyanate monomer in which the isocyanate groups are borne by  $sp^3$  carbon atoms, and optionally from other monomers, this process comprising the following steps:

- i) reacting the at least one isocyanate monomer in the presence of ~~(a)~~ a (cyclo)trimerization catalyst under (cyclo)trimerization conditions to obtain an isocyanurate trimer reaction product or ~~(b) a biuretization catalyst to obtain a biuret trimer reaction product;~~
  - ii) heating the reaction product from step i) containing said trimer and unreacted isocyanate monomers, in the absence of dimerization catalyst, to a temperature of at least 80°C, and of not more than 200°C, for a period of less than 24 hours to obtain a reaction product;
  - iii) removing unreacted monomers from the reaction product from step ii);
- and
- iv) isolating the low-viscosity polyfunctional isocyanate composition.

42. (Previously Presented) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing (a) at least one isocyanate trimer containing an isocyanurate unit, or a trimer containing a biuret unit or mixtures thereof, and (b) at least one isocyanate dimer containing a uretidinedione unit, from a starting reaction medium containing at least one isocyanate monomer in which the isocyanate groups are borne by  $sp^3$  carbon atoms, and optionally from other monomers, this process comprising the following steps:

- i) reacting the at least one isocyanate monomer in the presence of a (cyclo)trimerization catalyst under (cyclo)trimerization conditions to obtain an isocyanurate trimer reaction product;
  - ii) heating the reaction product from step i) containing said trimer and unreacted isocyanate monomers, in the absence of dimerization catalyst, to a temperature of at least 120°C, and of not more than 170°C, for a period of less than 5 hours to obtain a reaction product;
  - iii) removing unreacted monomers from the reaction product from step ii);
- and
- iv) isolating the low-viscosity polyfunctional isocyanate composition.

43. (Previously Presented) A process according to claim 39, wherein said isocyanate dimer is obtained by heating the reaction medium along a decreasing temperature gradient.

44. (Previously Presented) A low-viscosity polyfunctional isocyanate composition comprising at least one uretidinedione isocyanate dimer and at least one trimer having a biuret function, wherein said biuret function containing trimer represents at least 10% by weight based on the weight of the composition and the weight ratio of true dimer units/total of isocyanate functions is  $\leq 30\%$ .

45. (Previously Presented) A low-viscosity polyfunctional isocyanate composition comprising at least one uretidinedione isocyanate dimer and at least one trimer having a biuret function, wherein said biuret function containing trimer

represents at least 20% by weight based on the weight of the composition and the weight ratio of true dimer units/ total of isocyanate functions is  $\leq 30\%$ .

46. (Previously Presented) A composition comprising:

- at least one polyisocyanate composition according to claim 45; and
- a polyol.

47. (Previously Presented) A composition comprising:

- at least one polyisocyanate composition according to Claim 45; and
- an acrylate polyol which satisfies the following conditions for a dry extract:
  - Mw (weight-average molecular weight) not greater than 10,000;
  - Mn (number-average molecular weight) of not greater than 5000;
  - Mw/Mn (dispersity ratio) of not greater than 5; and
  - number of OHs/molecule of greater than or equal to 2.

48. (Previously Presented) A composition comprising:

- at least one polyisocyanate composition according to Claim 45; and
- a polyester polyol having a viscosity of not greater than 10,000 mPa.s at 25°C, and an Mw of between 250 and 8000.

49. (Previously Presented) A composition according to claim 46, containing a crosslinking catalyst, which is optionally a latent catalyst.

50. (Currently Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing (a) at least one isocyanate dimer containing ~~an isocyanurate~~ a urethidinedione unit and (b) at least one compound containing a function derived from the isocyanate function, from a starting reaction medium containing at least one isocyanate monomer, in which the isocyanate groups are borne by  $sp^3$  carbon atoms, and another compound comprising at least one function other than isocyanate, wherein the compound comprising at least one function other than isocyanate is reactive with isocyanate functions, this process comprising the following steps:

i) reacting the isocyanate monomers with a compound comprising at least one function other than an isocyanate function, which is reactive with the isocyanate function;

ii) heating the reaction mixture from step i), in the absence of dimerization catalyst, to a temperature of at least 80°C, and of not more than 200°C, for a period of less than 24 hours to obtain a reaction product;

iii) removing unreacted monomers from the reaction product from step ii);  
and

iv) isolating the low-viscosity polyfunctional isocyanate composition.

51. (Currently Amended) A process for the preparation of a low-viscosity polyfunctional isocyanate composition containing (a) at least one isocyanate trimer containing an isocyanurate unit, or trimer containing a biuret unit or mixtures thereof, and (b) at least one isocyanate dimer containing a uretidinedione unit, from a starting reaction\_medium containing at least one isocyanate monomer, in which the isocyanate groups are borne by  $sp^3$  carbon atoms, and optionally from other monomers, this process comprising the following steps:

i) reacting the isocyanate monomers with a compound comprising at least one function other than an isocyanate function, which is reactive with the isocyanate function;

ii) heating the reaction mixture from step i), in the absence of dimerization catalyst, to a temperature of at least 120°C, and of not more than 170°C, for a period of less than 5 hours to obtain a reaction product;

iii) removing unreacted monomers from the reaction product from step ii);  
and

iv) isolating the low-viscosity polyfunctional isocyanate composition.